ABSTRACT OF THE DISCLOSURE

An exposure method for projecting, through a projection optical system, a predetermined pattern formed on a mask onto an object to be exposed, said exposure method comprising the steps of calculating a Zernike sensitivity coefficient that represents sensitivity of a change of image quality of the predetermined pattern to a change of a Zernike coefficient, when wave front aberration in the projection optical system is developed into a Zernike polynomial in plural point light sources that divide an effective light source area for illuminating the mask, and determining an effective light source distribution based on intensity of each point light source and the Zernike sensitivity coefficient.